

PART I

ENVIRONMENTAL ANALYSIS OF RAGLE RANCH PARK

INTRODUCTION

Ragle Ranch Park is a 157-acre site. Its eastern boundary is Ragle Road, which is also the western city limit of the City of Sebastopol. The site was once a Douglas fir-redwood forest until approximately 1860 when the area was logged and cleared for grazing. Aside from minimal agricultural practices, such as berry farming and some orchards, the site has been used primarily for grazing since that time.

Topography and hydrology are the major controlling factors affecting the environment of the Ragle Ranch site. These factors, operating together and simultaneously affecting each other, provide a setting for the many distinct plant communities. Approximately 60 percent of the site is in the 100-year flood plain of Atascadero Creek. This is relatively flat, and due to deposits of fine grained alluvium and a high water table, soil percolation rates are slow, allowing for the abundance of moisture-loving plants. Atascadero Creek also provides a riparian habitat. Vernal pools are found in the marshy low-lying areas, which can be considered to be the most unique biotic areas on the site. Correct management of these areas is important and will be discussed in Part II, the management and planning section.

In contrast to these low-lying wet areas, the eastern portion, or approximately one-third of the site, is composed of rolling hills. Here, due to the distinct differences in topography, bedrock geology and well-drained soil, distinctly different plant communities exist. The predominant plant cover is grassland, which is punctuated by scattered trees and small wooded areas. Coast live oak is the most common tree.

The climate of Ragle Ranch Park is typical of Sonoma County. The site lies in a fog belt, and frequent overcast or foggy days can be expected, especially in the summer months.

The various environmental factors which operate on the site are discussed in detail in Part I, including a discussion of historical and

archeological aspects of the site. Needs for historical and archeological preservation have not been completely studied, but evidence suggests the potential existence of some sensitive areas.

Environmental factors are reviewed, specific constraints are identified, and interrelationships between the various factors are evaluated to provide a management plan for the potential uses of the site as a park in Part II.

HISTORY

The first European to discover the area that is now known as Sonoma County was either Juan Rodriguez de Cabrillo or his pilot, Ferrelo, in 1542. England took over the area in 1579, but there was not much European occupation in California until the Russians landed in 1811. The Mexicans ruled California from 1822 until 1846, when the Californians took over, independent of the United States. The United States flag was raised in California later that year, and in 1850 Sonoma County was established. The word "Sonoma" means "Valley of the Moon." The town of Sebastopol, where the Ragle Ranch is located, was founded in 1855 by J. H. P. Morris, who came to the county in 1853. Morris originally called the town "Pine Grove."

George J. Ragle came to California in 1849, cleared the area now known as Ragle Ranch and made it his place of residence. He planted orchards, but his attention was focused mainly on general agriculture and livestock operations. He had some 40 head of sheep and some horses. He became Sebastopol's leading farmer and died in 1894. His son, Alexander Ragle, lived on the land until 1880 when he acquired land of his own in the same general area. Alexander's son, George Ragle, was born in Sebastopol on November 9, 1886. He took charge of his grandfather's land in 1907 and inherited it in 1916 when his grandmother died.

George utilized the land for dairy farming and kept about 40 head of high-grade Jersey dairy cows led by purebred bulls. He employed the most up-to-date methods with the help of his partner, George Ungewitter (an experienced and practical dairyman). He also had ten acres of well-kept peach and apple orchards, seven acres of berries and acreage for potatoes and barley.

The most recent owners of the site were Arthur and Geraldine Smith, Frank and Daisy Tallarica and Leda Graves, who acquired it in 1967. Dr. Paul Ehrlich was also a part owner. Anne Howland became part owner in 1970 until it was purchased by the County of Sonoma in 1976 for the development of Ragle Ranch Park. Purchase price was \$400,000 with the bulk of this sum, \$288,000, acquired through the State Parks Bond Act, \$27,000 from the City of Sebastopol, and the balance from Federal Revenue Sharing.

CULTURAL RESOURCES

The Pomo Indians occupied the land extending north along the Russian River Valley into Mendocino County, east to Clear Lake, west to the Pacific Coast, and south to the Golden Gate. The Pomo Indians spoke seven different dialects, each band speaking their own dialect, depending on their location. They were bands with a loose social organization, with no chief but, instead, a person acting only as an advisor with limited authority. The men wore little clothing and the women wore skirts made of grass, but skins were worn in the cold weather. Their huts were made of mud and rushes packed around a wooden conical frame. The Pomo ate acorns from the black oak, tan bark oak and live oak, grasses and seeds, bulbs, tubers and many other natural foods which are abundant in the area, including live game and fish. The Pomo moved frequently but only short distances within a couple of miles of their last camp. Their baskets are noted for their fineness of weave and artistry of pattern.

There have not been any archeological studies conducted on the Ragle Ranch site specifically, but studies done on the surrounding areas reveal that it is a sensitive archeological area. This means that it could quite possibly contain middens or other evidence of past Pomo Indian use. There is also question as to the historical significance of the fence posts and the building that is on the site. These factors may very well be historically, architecturally or culturally important. A site specific study is in progress with the help of Dr. Peter Mellini, Associate Professor of History at Sonoma State College in regard to these resources. In any case, it is important that these structures be conserved until a professional survey is made with the building and fence

line recorded and photographed. These fence posts may mark past flooding, lichen succession, serve as perches for the birds in the area and also as markers for historic patterns of land use. It is also important that no planning be done until an archeological survey has been completed. These factors are important in the building of roads, sewer and power lines, and such populace problems as vandalism.

GEOLOGICAL HISTORY

The Franciscan-Knoxville group of upper Jurassic age is the earliest geological event recorded here.

This area is apparently part of a broad, slowly sinking geosyncline with thick deposits of sandstone and shale.

Submarine volcanism accompanied deposition of sediments as basic lava flows poured out on the sea floor and in places intruded into the sands at shallow depths. Silica concentrated in the seawater as a result of volcanism and precipitated to form numerous lensed bodies of chert. Later deposition of sediments were intruded by basic and ultrabasic igneous rocks and some places metamorphosed the intruded rock.

Tectonic activity increased and culminated in a severe diastrophism in late Pliocene time when the block south of Tolay fault was uplifted several thousand feet and the Petaluma formation was removed from it. On the north side of the San Franciscan-Marín block, during and after this process of mountain making, occurred a topography of late maturity or early old age, marked by relatively low, rounded hills and broad valleys.

In Upper Pliocene time, the area was depressed, possibly by a broad warping, and covered by the sea in which the Merced formation was deposited. Eastward, volcanic activity began; lava flows and pyroclastics of Sonoma volcanics were emitted in great volume. These flows spread out over the Petaluma formation and the Franciscan-Knoxville rocks bordering the Tolay fault; fluvial sands and gravels were deposited between flows. A burst of explosive volcanic activity spread ashes and pumice over the Merced Sea. These ashes, combined with debris brought in by streams, formed tuff, a rock composed of angular fragments cemented together.

SEISMIC HISTORY

Sebastopol fault history lies mainly in pre- and post-Merced age. These involve the Franciscan-Knoxville group. Most are probably fault contacts and show signs of movement or small displacement. In the Franciscan-Knoxville rocks west of Forestville, two faults occur and extend northeastward into the Healdsburg Quadrangle and are part of the Mount Jackson fault zone.

The Tolay fault extends from San Pablo Bay for over 20 miles into the Sebastopol Quadrangle north of Dunham School. This brings into contact the Franciscan-Knoxville rocks on the southwest side of the fault with the Petaluma formation on the northeast side. The post-Merced movement consisted of small, mainly vertical displacements, insufficient to expose underlying rocks of the Merced formation a mile northwest of Dunham School. The main activity along this fault took place after Petaluma time and before Merced time.

The post-Merced faults in the Sebastopol Quadrangle clearly indicate a common origin. They occupy a block which is an extension of the San Andreas fault system and, on the east, borders a possibly extension of the Hayward fault. During Pleistocene time, probably during the mid-Pleistocene orogeny, this block was uplifted and tilted to the east. It is probable that concurrent and subsequent settling movements developed this series of faults described above. Some of these are perhaps reactions of older faults, as the general strike of the post-Merced faults is about the same as the regional strike in the Franciscan-Knoxville group. (More detailed information on seismic history is available in Appendix A.)

GEOLOGICAL HAZARDS

The Mount Jackson fault and the Tolay fault may affect this area. These were possibly active during Quaternary time. These may possibly have further activity.

The Healdsburg fault may affect this area. This is a potentially active fault considered to have been active during the Quaternary time, also.

The San Andreas fault may also affect this area. This is a recently active fault; the average movement is approximately one centimeter per year.

Due to the linear occurrence of these above-mentioned faults, it was presumed that the Mount Jackson and Tolay faults might connect. A farmer mentioned that during the 1906 San Francisco earthquake a small fault opened up on the site. This was not possible to observe, and no data are available to correlate with this assumption. The alluvium could possibly cover any traces of this occurrence.

BEDROCK GEOLOGY

Qal indicates the presence of alluvium, sand, gravel, silt and/or clay. Tm indicates the presence of fine-grained sandstone and local minor coarse-grained grit and tuff breccia*, poorly indurated**.

No anticlines or synclines were indicated by this map.

LANDSLIDES AND RELATIVE SLOPE STABILITY

"A" indicates areas of greatest relative stability due to low slope inclination--dominantly less than 15 percent.

"B" indicates areas of relatively stable rock and soil units on slopes greater than 15 percent, containing few landslides.

"C" indicates areas of relatively unstable rock and soil units on slopes greater than 15 percent, containing abundant landslides.

Note that areas "B" and "C" have geological conditions in areas and landslides that mandate engineering geological reports be required prior to tentative tract approval for land use planning and local development within those areas.

OTHER HAZARDS

Fire may pose a problem during the dry season, especially when and where park visitors smoke. This is especially a problem in the grassland and oak woodland areas.

During an earthquake, liquefaction may occur, especially in the alluvial floodplain indicated on the hydrology map.

*Tuff breccia indicates fragmented rock or rock formed from fragmented volcanic compressed rock.

**Indurated indicates rock rendered hard, masses hardened by heat or by compaction (pressure and/or cementation).